

GEOGRAPHY

Intermediate and
Senior Divisions, 1988

Curriculum Guideline

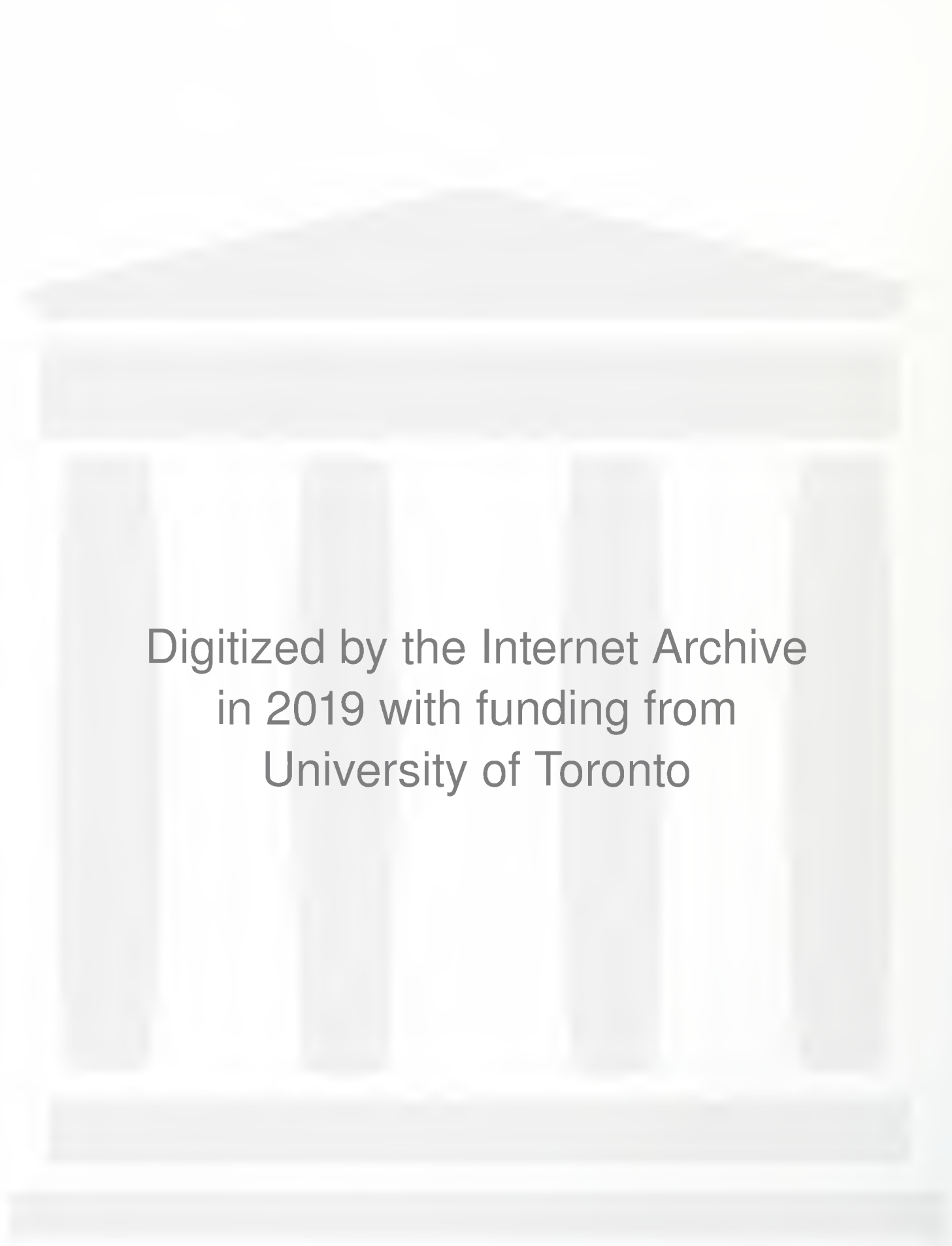
Part A: Policy and
Program Expectations



Ministry
of
Education

Ontario

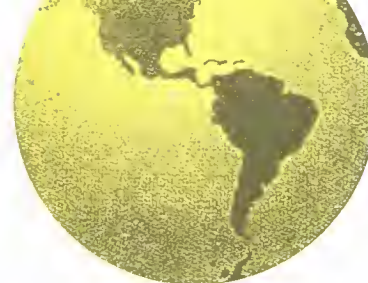
Chris Ward, Minister
Bernard J. Shapiro, Deputy Minister



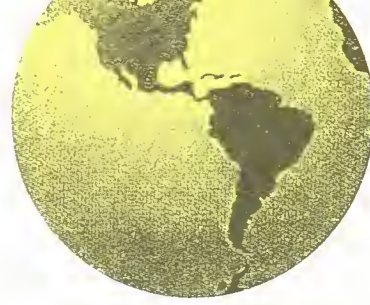
Digitized by the Internet Archive
in 2019 with funding from
University of Toronto

<https://archive.org/details/geographyinterme00onta>

CONTENTS



INTRODUCTION	2
THE GOALS OF EDUCATION	3
THE NATURE OF GEOGRAPHIC EDUCATION	5
THE AIMS OF GEOGRAPHIC EDUCATION	6
THE FOUNDATIONS OF THE GEOGRAPHY CURRICULUM	The Acquisition of Knowledge 7 Cognitive-Skills Development 9 Affective Development 13
THE LEARNING PROCESS AND GEOGRAPHIC EDUCATION	Learning, Experience, and Language 16 Learning Styles 17 Individual Differences 17 Learning Exceptionalities 17
PLANNING	Program and Course Requirements 19 Credits and Modules 19 Guidance and Careers 19 Continuing Education 20 School- and Community-Related Packages 21 Co-operative Education 21 Sex Equity 21 Multiculturalism 22 Language Across the Curriculum 22 Library Resource Centres 23 Computers in Geographic Education 23 Levels of Difficulty 25 The Evaluation of Student Achievement 27
GUIDELINE IMPLEMENTATION	Responsibilities at the School-Board Level 29 Responsibilities at the School Level 30 Responsibilities Within an Organizational Unit of the School 30
PROGRAM REVIEWS	31
GEOGRAPHY PROGRAM SUMMARY	Intermediate Division Courses (Grades 7 to 10) 33 Senior Division Courses (Grades 11 and 12) 33 Ontario Academic Courses 35
ACKNOWLEDGEMENTS	36



This guideline describes the expectations of the Ministry of Education for geography and geography-related courses in the Intermediate and Senior Divisions, including Ontario Academic Courses (OACs). School boards shall use it to review, develop, and implement programs and courses of study. This guideline supersedes the following curriculum guidelines:

Urban Studies, 1971

Geography, Intermediate Division, 1977

Geography, Senior Division, 1978

It is not expected that all of the secondary school courses described in this guideline will be offered at every school. However, each secondary school should provide a combination of courses at the levels of difficulty that best meet the needs and abilities of its students.

The curriculum guideline in geography is divided into six parts:

Part A: Policy and Program Expectations describes the foundations of the geography curriculum and sets out the ministry's expectations for geography programs.

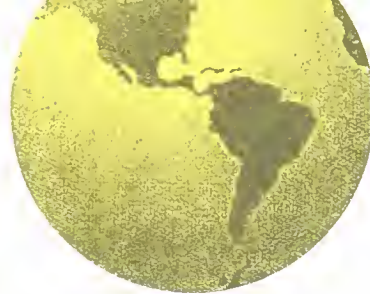
Part B: Planning at the Local Level provides assistance for the planning of school programs, courses of study, and units of study. It includes practical assistance for teachers in establishing objectives and in planning for and evaluating student growth in knowledge, skills, and attitudes.

Part C: The Intermediate Division Program includes descriptions for geography courses in Grades 7 and 8, as well as the mandatory Canadian geography credit and an optional course on Europe and Asia for Grades 9 and 10.

Part D: The Senior Division Program, Revised Courses includes descriptions of the following four Senior Division courses: Physical Geography, Human Geography, Regional Geography, and Urban Studies.

Part E: The Senior Division Program, New Courses includes descriptions of the following three Senior Division courses: Geographics, World Development, and Environmental Studies.

Part F: The Senior Division Program, Ontario Academic Courses includes descriptions of the two geography OACs – World Issues: Geographic Interpretations and Canada: Environment and Economy.



Educational decisions are based on assumptions about students and about learning processes. The geography curriculum is based on the assumption that all learners – from the youngest onwards – participate actively in learning and gain satisfaction from it. Thus, they can be self-motivated, self-directed problem solvers who are aware of both the processes and the uses of learning. This is consistent with the following definition of the image of the learner:

The image of the learner implicit in Ministry of Education guidelines and policy statements is complex. Recognizing the diversity of individual abilities and interests, the Ministry views the learner as an active participant in education who gains satisfaction from the dynamics of learning. The concept of the learner as a mere processor of information has been replaced by the image of a self-motivated, self-directed problem-solver, aware of both the processes and uses of learning and deriving a sense of self-worth and confidence from a variety of accomplishments. This learner is guided by values consistent with personal religious-ethical beliefs, cultural traditions, and the common welfare of society. The image also reveals a methodical thinker who is capable of inquiry, analysis, synthesis, and evaluation, as well as a perceptive discoverer capable of resourcefulness, intuition, and creativity.¹

The goals of education for Ontario, which follow, flow from this image of the learner, and the goals of geographic education derive from and support these provincial goals.

The Ministry of Education strives to provide in the schools of the province equal opportunity for all. In its contribution to programs, personnel, facilities, and finances, the ministry has the overall purpose of helping individual learners to achieve their potential in physical, intellectual, emotional, social, cultural, and moral development. The goals of education, therefore, consist of *helping each student to:*

1. develop a responsiveness to the dynamic processes of learning

Processes of learning include observing, sensing, inquiring, creating, analysing, synthesizing, evaluating, and communicating. The dynamic aspect of these processes derives from their source in many instinctive human activities, their application to real-life experiences, and their systematic interrelation within the whole curriculum.

2. develop resourcefulness, adaptability, and creativity in learning and living

These attributes apply to modes of study and inquiry, to the management of personal affairs such as career plans and leisure activities, and to the ability to deal effectively with challenge and change.

3. acquire the knowledge and skills needed to comprehend and express ideas through words, numbers, and other symbols

Such knowledge will assist the learner in applying rational and intuitive processes to the identification and solution of problems by:

- a) using language aptly as a means of communication and an instrument of thought;
- b) reading, listening, and viewing with comprehension and insight;
- c) understanding and using mathematical operations and concepts.

4. develop physical fitness and good health

Factors that contribute to fitness and good health include regular physical activity, an understanding of human biology and nutrition, the avoidance of health hazards, and concern for personal well-being.

1. Ontario, Ministry of Education, *Issues and Directions* (Toronto: Ministry of Education, Ontario, 1980), pages 2-3.

5. gain satisfaction from participating and from sharing the participation of others in various forms of artistic expression

Artistic expression involves the clarification and restructuring of personal perception and experience. It is found in the visual arts, music, drama, and literature, as well as in other areas of the curriculum where both the expressive and receptive capabilities of the learner are being developed.

6. develop a feeling of self-worth

A feeling of self-worth is affected by internal and external influences. Internally it is fostered by realistic self-appraisal, confidence and conviction in the pursuit of excellence, self-discipline, and the satisfaction of achievement. Externally it is reinforced by encouragement, respect, and supportive evaluation.

7. develop an understanding of the role of the individual within the family and the role of the family within society

Within the family the individual shares responsibility, develops supportive relationships, and acquires values. Within society the family contributes to the stability and quality of a democratic way of life.

8. acquire skills that contribute to self-reliance in solving practical problems in everyday life

These skills relate to the skilful management of personal resources, effective participation in legal and civic transactions, the art of parenthood, responsible consumerism, the appropriate use of community agencies and services, the application of accident-prevention techniques, and a practical understanding of the basic technology of home maintenance.

9. develop a sense of personal responsibility in society at the local, national, and international levels

Awareness of personal responsibility in society grows out of knowledge and understanding of one's community, one's country, and the rest of the world. It is based on an understanding of social order, a respect for the law and the rights of others, and a concern for the quality of life at home and abroad.

10. develop esteem for the customs, cultures, and beliefs of a wide variety of societal groups

This goal is related to social concord and individual enrichment. In Canada it includes regard for:

- a) the Native peoples;
- b) the English and French founding peoples;
- c) multiculturalism;
- d) national identity and unity.

11. acquire skills and attitudes that will lead to satisfaction and productivity in the world of work

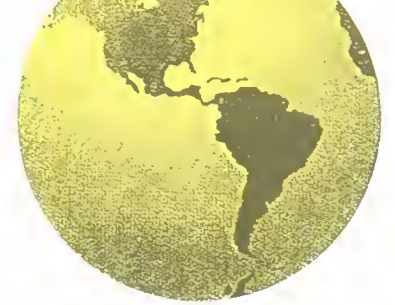
In addition to the appropriate academic, technical, and interpersonal skills, this goal relates to good work habits, flexibility, initiative, leadership, the ability to cope with stress, and regard for the dignity of work.

12. develop respect for the environment and a commitment to the wise use of resources

This goal relates to a knowledgeable concern for the quality of the environment, the careful use of natural resources, and the humane treatment of living things.

13. develop values related to personal, ethical, or religious beliefs and to the common welfare of society

Moral development in the school depends in part on a consideration of ethical principles and religious beliefs, a respect for the ideals held by others, and the identification of personal and societal values.



There are many definitions of *geography*. In simple terms geography is the study of the earth and the human use of it, particularly from a spatial point of view. This definition implies a need for knowledge about the earth, knowledge about the ways in which humans use the earth's resources, and skills to recognize, describe, and explain the spatial patterns that result from the interaction of people and their environment.

Although the world has both physical and human dimensions, people experience it as a comprehensive whole. Thus, although we must identify and analyse many separate parts of the environment, we must do so from a global perspective. To accomplish this, we must have reference points to give meaning and value both to the component parts and the integrated whole.

The acquisition of such a perspective on the world demands knowledge, skills, and judgement: a knowledge of the questions, topics, or studies that will lead to increased understanding; the skills to divide, combine, and recombine the component parts in ways that give them new meaning; and personal judgements about existing and proposed ways to deal with the human use of the earth.

Most individuals begin a study of geography in an unstructured way: they try to make sense of their immediate environment. However, first-hand experience in itself is not sufficient to lead to an understanding of our vast, complex, and changing world. Studies in geography help students to gain that understanding by providing both a framework of knowledge and skills and opportunities to develop positive attitudes and values.

Students whose studies are based on this guideline will live most of their adult years in the twenty-first century. For this reason, teachers must encourage their students to consider carefully the effect of values, attitudes, and goals on the uses that are made of the earth.

Geographic studies should be concerned with what might be as well as with what exists. If we are to live and work in environments that are aesthetically pleasing as well as functional, we must pay increasing attention to environmental planning, land-use management, and architectural design. Students must be encouraged to place a high priority on aesthetic objectives as they consider all of the issues related to the use of the earth.

The personal qualities that are cultivated in geography programs will help students to be successful in the workplace. Among these are punctuality, persistence, organizational skills, and the ability to work both independently and in co-operation

with others towards defined objectives. In addition, studies in geography should help students to understand what the workplace is and to recognize the career opportunities that it offers. Few Canadians in the twenty-first century will work on farms or in the fishing industry. Some will work in factories and on assembly lines. Most will work with information in service industries, both with and for other people. Studies in geography will provide the skills and preparation for careers in such service industries as travel, leisure, government, education, transportation, communications, planning, and management.

THE AIMS OF GEOGRAPHIC EDUCATION



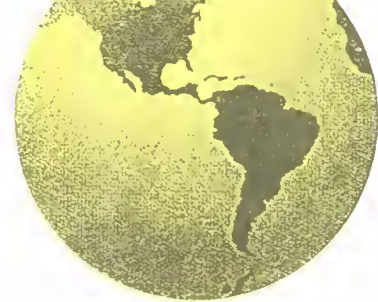
Geography is identified formally as a subject of study in Grade 7, but many learning activities in the Primary and Junior Divisions are essentially geographic in nature because they relate to people, environments, and how they interact. The programs in these divisions provide students with opportunities to understand the environment, both in terms of the nature of its parts and of the patterns that characterize it as a whole, as well as to understand more fully the great variety of ways in which humans interact with their environment. Thus, by the time they reach the Intermediate Division, students will have had opportunities to come to an understanding of the following:

- the natural environment: how it affects, and in turn is affected by, human decisions and actions
- the relationships between natural things and manufactured things and between people and things
- the development of patterns and relationships over time
- the geography and culture of their community, their province, and the country as a whole
- law and government, as well as the rights and duties of Canadian citizens
- the points of view of ethnic and cultural groups other than their own

Studies in geography in the Intermediate and Senior Divisions should extend and deepen the knowledge, skills, and attitudes that students have acquired in the formative years. They should provide opportunities for students to:

- develop an understanding of their surroundings and extend their interests in and knowledge of other peoples and environments;
- acquire sufficient knowledge to enable them to understand local, national, and international events;
- comprehend the physical and cultural processes (environmental, social, economic, political) that produce similarities and differences on the earth's surface;
- understand the significance of location, spatial interaction, pattern, region, and human-environment interactions to the development and organization of human activities;
- develop an awareness and appreciation of multiculturalism and the cultural, economic, and political aspirations of others;
- appreciate the variety, complexity, and aesthetic qualities of human and natural environments;
- examine, reaffirm, or revise their own attitudes towards the human use of the environment and evaluate the attitudes of others in this regard; ✓
- develop the range of skills and competencies that are necessary for geographic inquiry and that may also be widely applicable in other contexts;
- develop skills in establishing objectives for their studies in geography and in working both independently and in co-operation with others to achieve them;
- develop and enhance their ability to communicate orally, in writing, and graphically;
- develop self-awareness and a positive self-concept.

THE FOUNDATIONS OF THE GEOGRAPHY CURRICULUM



The Acquisition of Knowledge

Fundamental Conceptions

This section provides descriptions of the knowledge, skills, and attitudes that are the foundations of the geography curriculum for Ontario. While these statements provide guidance on the organization of geographic studies, they do not prescribe content. This should allow the courses to be updated in the future without major changes.

The forces acting on the earth have produced a variety of environments over its surface. Geography students are concerned with the nature of these environments and with the ways in which people use and modify them. Because the earth is a living, dynamic planet and because we are persistent in our efforts to use it to meet our ever-changing needs, few facts about places remain constant. It is useful, therefore, to provide students with a body of accurate concepts, principles, and generalizations, as well as techniques that can be used to collect and organize large amounts of knowledge so that it can be easily used and understood. This foundation will help students to understand and evaluate better the consequences of human actions on the environment. Five conceptions are fundamental to the organization of geographic studies; they are location, pattern, spatial interaction, human interaction with the environment, and region. While all of them will be present in every course, their relative emphasis will vary significantly from course to course. The following definitions and examples indicate how closely related each is to the others.

1. Location. At any instant everyone and everything occupy a place on earth that can be described both in *absolute* terms in reference to the earth's grid and in *relative* terms in reference to the location of other persons or things. Three questions are central: "Where?", "Why there?", and "What is the significance of its being there?" Every course in geography should enhance students' understanding of the importance of location.

Example: The discovery and development of oil changed Alberta's importance and significance, as well as its relationship to many other places, even though its absolute location remained the same.

2. Pattern. *Pattern* refers to a detectable organization of physical or human phenomena on the earth. Pattern is strongly related to location because patterns are essentially sets of phenomena in various locations at a particular time. Patterns provide the basis for the observation and analysis of the cultures and processes that have produced the distinctive spatial organization of a particular landscape. Geographic studies should help students to see patterns and to explain their existence and characteristics.

Example: Most Canadians live in a narrow, discontinuous east-west belt running within 300 km of the Canada–United States border.

3. *Spatial interaction.* Interaction among places on the earth's surface is evident in the flow of people, energy, goods, information, and money. The patterns of movement and linkage change over time as a result of such factors as advances in technology, changing resource use, and shifts in government policy. Studies in geography should help students to understand the nature and function of these flows and the spatial patterns they create.

Example: Canada is linked with virtually every part of the world by trade, migration, finance, culture, or family ties.

4. *Human interaction with the environment.* The environment is a living entity; it comprises the physical and biotic systems on, within, and surrounding the earth. Humans both live in and form part of the earth's environment. The environment influences human beings and their activities, and, in turn, they change it as they use it. This interaction between human beings and their environment should be considered in every study in geography.

Example: The establishment of a conservation area may have tangible effects in terms of flood control, water quality, and natural-habitat preservation. It may also have intangible effects in terms of the public's awareness and aesthetic enjoyment of the environment.

5. *Region.* A region is a distinctive segment of the earth defined according to a particular criterion or set of criteria. What constitutes a region varies according to the purposes of those who define it. Regional patterns, changing over time, are the result of unique sets of natural and cultural forces acting on them. Regions provide manageable and significant subdivisions of the earth and make possible the study of physical and human distributions, associations, processes, and interactions.

Example: The Appalachian region may be defined by its physiography, the Mediterranean region by its climate, the Basque region by its culture, and Hong Kong by its economic system.

Geographic Knowledge

One of the aims of geographic studies is to increase student knowledge of places on the earth's surface. As children grow, they become aware both of their own surroundings and of the fact that other peoples and environments differ in some ways. Geographic studies should lead them towards a systematic understanding of the world. To respond effectively and comfortably to future economic, social, political, and environmental issues, students must be able to remember facts and ideas and understand relationships. As well they must be able to locate pertinent information, to interpret it, and to put it to practical use.

Geographic education involves the acquisition of a fundamental body of knowledge. However, because each place is unique and complex, it would be unreasonable to expect anyone to have a comprehensive knowledge of many places.

Nonetheless, in any study certain information such as location, population, major cities, resources, living standards, main crops, transportation routes, communications systems, and trading partners can be significant. Achieving the aims of geographic education will, therefore, involve the acquisition of a fundamental body

Cognitive-Skills Development

of knowledge. The selection of an appropriate content base is not an easy task, but it is an essential one.

The content of courses in geography should develop students' understanding of the foundations of geography and relate these to events in the contemporary world. Because change occurs constantly both at home and abroad, courses should reflect an awareness of current realities and should increase students' knowledge of today's cultures, environments, political systems, and stages of technological development. In every course developed from this guideline time should be allocated regularly to the study of events of current relevance. These events should be integrated directly into the lesson or unit under study whenever appropriate both to motivate and to keep the knowledge current. In many studies it will also be worthwhile to identify trends and to predict possible futures based on those trends.

The development of cognitive skills is a core expectation of all studies in geography. For the purposes of this guideline, the aims for cognitive-skills development are described in two broad categories: shared interdisciplinary skills and geographic skills. Shared skills are those skills for which both teachers of geography and teachers of other subjects have responsibility; they include thinking, inquiry, and communications skills. Geographic skills are those for which the geography teacher has the major responsibility, although they are not exclusive to geographic studies.

Much skill development will take place incidentally as a result of the procedures followed by students in the acquisition of knowledge and the mastering of concepts within each unit of study. Other skills must be taught explicitly and practised. (Part B of this guideline provides extensive, though not all-inclusive, lists of such skills.) Teachers must ensure that both cognitive- and geographic-skill development are planned for every unit. In all cases skill development should take into account the abilities and maturity of students in the classroom. The following sections provide an approach to the identification and organization of skills.

Inquiry Skills

Table 1 is generalized from the basic inquiry model presented in the ministry's resource document *Research Study Skills* (Toronto: Ministry of Education, Ontario, 1979). This document contains a detailed description of the inquiry process and an extensive list of skills.

Table 1 *Descriptions of and Inquiry Activities Related to Some Cognitive Skills*

Skill	Description	Activities
Focusing	Students: – limit, direct, or define a topic, a problem, or an issue under study;	Students: – narrow a question or issue by identifying it; developing background knowledge; clarifying facts and concepts; and clarifying priorities and limitations;
Organizing	– select or develop a visual representation, a chart, or an organizer in order to focus on the topic, problem, or issue under study;	– develop a sequence of steps by deciding on a way to approach the issue (e.g., by posing a question for study) and choosing a framework for the information that is gathered;
Locating	– identify, find, and use reliable and relevant sources of information;	– secure relevant information by planning an information search and choosing the sources of information to be used;
Recording	– summarize and translate the information they have collected;	– carry out the plan and process the information by obtaining the data required and placing the information into the framework that has been established;
Evaluating/assessing	– determine the validity, appropriateness, significance, and accuracy of the information they have collected;	– organize support for the claim, answer, or explanation; judge the adequacy of the supporting data; determine relationships among the data; draw inferences; and propose a claim, an answer, or an explanation;
Synthesizing/concluding	– make connections among the bits of information they have collected and draw conclusions from them;	– reflect on the solution reached and determine whether the question has been answered or the problem solved;
Applying	– make predictions or generalizations;	– determine whether the solutions or conclusions arrived at can be applied to other situations;
Communicating	– describe the information, ideas, and process involved in their inquiry.	– communicate the solution in a way that is consistent with the purpose of the inquiry and the intended audience (e.g., use maps, graphs, photographs, charts, sketches, diagrams, and models where appropriate); – write coherently and correctly; – speak with assurance and accuracy; – portray roles credibly in simulated situations; – defend a point of view.

Geographic Skills

The value of many of the skills that are associated with studies in geography lies in their power to present information in succinct and meaningful ways. Often this involves graphs, charts, maps, and models.

The planning for the development of geographic skills should take into account the current capabilities of students and the demands of the content. Skills should be used purposefully on a regular basis and reviewed as necessary so that students come to recognize them as being personally useful. (If they are taught in isolation, skills may seem to lack purpose and justification and are unlikely to be retained.)

Table 2 describes three levels of skill development that teachers may use as a guide in devising learning activities. Note that each successive cluster of skills represents a higher order of cognitive processes. Progression through these skill levels may take place within a unit, course, grade, or set of courses. Students should have practice in using a wide variety of sources and forms of information. More detailed descriptions of geographic-skills development may be found in Part B of this guideline.

Table 2 Growth Chart for Geographic Skills

Categories of Skill	Progression		
Field study	Students should: – under direction, observe, describe, record, collect, classify, and report on features and activities of their neighbourhood and community;	Students should: – observe, record, collect, describe, analyse, and report on features and activities of the local community and region;	Students should: – plan and carry out a field study to obtain primary data for research purposes;
Maps and globes	– derive and present information from road maps, thematic (atlas) maps, sketch maps, globes, and gazetteers;	– describe patterns and identify relationships, using topographical maps;	– analyse, interpret, and explain patterns and relationships that they derive from topographical and computer-generated maps;
Charts and graphs	– derive and present information from line, bar, and circle graphs and tables of statistics;	– describe patterns and identify relationships from multiple-line graphs, scattergrams, flow charts, and simple data bases;	– analyse, interpret, design, and develop complex data bases;
Photographs and pictures	– derive and present information from photographs (including aerial photographs);	– describe and identify features and patterns, using aerial photos and remote-sensing images;	– analyse, interpret, and explain images, using aerial photographs and remote-sensing images;
Models	– derive and present information from simple diagrams, scale models, flow charts, simulations that involve two or three variables, and sample studies.	– describe features and patterns from the foregoing, as well as simulations that involve four or five variables.	– analyse, interpret, and explain, as well as design and develop networks, systems, and simulations that involve, six or more variables.

Affective Development

The affective domain involves feelings, emotions, attitudes, and values. Students' attitudes and values are formed in every classroom, whether this is intended or not. Studies in geography should contribute to character formation in a way that is consistent with both the goals of education for Ontario and the major aims of geographic education.

For the purposes of this guideline, it is assumed that an individual's character is formed gradually through a variety of experiences that shape and reinforce the individual's attitudes, values, and behaviour. Thus, affective aims are long-range. Their realization requires that students have repeated opportunities to experience and reflect on the significance of peoples' feelings, emotions, attitudes, and values as these affect the use of the earth. Every unit of study should include activities that emphasize the significance of human values.

Teachers should make clear that for many issues there is no single or simple solution. For instance, a discussion about how best to dispose of urban wastes will bring out many points of view. The important task is to bring the range of viewpoints together, to seek alternative solutions, to recognize the need for compromises, and to act in a socially responsible way.

In terms of affective development in geography, students should be provided with opportunities to become:

- *self-directed*, having the motivation and self-discipline to initiate and complete tasks;
- *interdependent*, working effectively with others to undertake and complete tasks;
- *environmentally responsible*, accepting the quality of the local, national, and global environment as a personal as well as societal responsibility;
- *humanitarian*, accepting the aspirations of other individuals, groups, and nations and promoting the improvement of their well-being.

Examples of growth in these character traits are provided in table 3.

The achievement of affective growth requires attention to a number of classroom practices. For example, if students are to become self-directed, they need a progression of activities in which they undertake increasing degrees of responsibility for their own learning. Similarly, if students are to become environmentally responsible, they require opportunities to consider the implications of decisions about the environment. Teachers must select topics and pedagogical approaches that will enable important questions to be addressed. Part B of this guideline provides more information in this regard.

The daily experiences of students provide opportunities to explore the significance of feelings, emotions, values, and attitudes in their lives. Students should be encouraged to sense, react to, and evaluate what is around them. Their conscious reflection on what makes a pleasant environment will help them to understand their role in its creation, maintenance, and improvement.

The assessment of student progress in the affective domain is seldom easy, and it cannot be a major focus of summative evaluation. However, teachers must be cautious not to restrict their views of what is important to what is easily measurable.

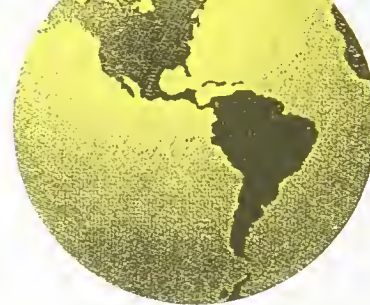
Table 3 Growth Chart for the Affective Domain

Character Trait	Progression		
Self-direction The student initiates and completes tasks.	Description		
	The student likes opportunities to choose tasks and methods on his or her own initiative.	The student is confident of his or her ability to approach and define tasks with little assistance or direction.	The student believes in his or her own capability to complete and assess tasks independently.
	Observable Behaviour		
	The student independently selects a topic for study and assesses outcomes.	The student works independently and requires little prompting in using appropriate tools, techniques, and research skills in the completion of a task.	The student exhibits initiative, independence, and purposeful work habits.
Interdependence The student works effectively with others to plan and complete tasks.	Description		
	The student enjoys working with others.	The student appreciates his or her contributions and those of others in a group process.	The student believes that groups can work together effectively to solve problems and carry out tasks.
	Observable Behaviour		
	The student works effectively with a small group of classmates to collect and share geographic information.	The student assumes responsibility for an equitable share of the tasks undertaken by a small group.	The student encourages people to work in small groups to investigate, complete, and report on tasks.

Table 3 Growth Chart for the Affective Domain (continued)

Character Trait	Progression		
Environmental responsibility The student accepts the quality of the local, national, and global environment as a personal and societal responsibility.	Description		
	The student enjoys the environment and recognizes positive and negative qualities in the immediate environment.	The student regards the quality of the local and Canadian environments as a personal concern.	The student believes that individuals have a responsibility to conserve resources and protect the environment in and beyond Canada.
	Observable Behaviour		
	The student participates in activities that make people aware of the need to protect the environment.	The student joins in a class activity that will result in an observable improvement in the natural or built environment.	The student participates in activities that result in the conservation or improvement of the environment.
Humanitarianism The student accepts the aspirations of other individuals, groups, and nations and promotes the well-being of others.	Description		
	The student likes being treated with respect and courtesy and appreciates the necessity to treat others in the same manner.	The student empathizes with people in different situations and locations.	The student believes in the importance of the aspirations of all nations and peoples in their quest for well-being.
	Observable Behaviour		
	The student participates in activities in which the divergent views of two or more persons are acted out.	The student balances empathy with objective criteria in the study of other groups, cultures, and races.	The student participates in activities in which bias, prejudice, and intolerance are confronted.

THE LEARNING PROCESS AND GEOGRAPHIC EDUCATION



Learning, Experience, and Language

All students undergo profound physical, emotional, intellectual, and social development as they grow from childhood to adulthood. A significant task for all teachers is to assist students in making this transition as positive and as productive an experience as possible.

Studies in geography should accommodate two fundamental needs of students. The first is personal: the need for individuality, identity, and a sense of self-worth. All of these attributes are necessary if students are to become informed, rational, concerned, and compassionate citizens. The second is intellectual: an understanding of the significant events and forces shaping the world around them. The pace of change requires that citizens be knowledgeable, adaptable, creative, and skilled in the use of new technologies. The following sections provide basic information about cognitive development and learning theories.

To create effective learning experiences for students, it is necessary to have an understanding of the learning process itself, that is, how learning happens and how it is affected by experience, language, and other forms of expression. Teachers should be aware, then, of current cognitive theory and practice in both learning and the subject field so that they can plan specific experiences and activities that are appropriate for individuals, with their great range of learning styles, or for groups of varied sizes and characteristics. Students should have opportunities to learn, as individuals and as members of a group, in ways that are meaningful, comfortable, and challenging.

Learning takes place when people process and consolidate information from their environment. It takes place as individuals organize and reorganize their perceptions of reality on the basis of their experiences in their environment. This growth in understanding often involves, and even demands, a growth in language, so that one can express the newly integrated experiences and understandings. Of course, the growth will involve the total person, engaging all of the human faculties and emotions.

Students entering Grade 7 will have a great variety of backgrounds and often unstructured experiences from their lives outside the school and from the more structured learning experiences of their schooling in the Primary and Junior Divisions. One very important aspect of their level of development will be their language ability, their ability not only to express them-

selves but to use their language skills to consolidate new learning efficiently. Teachers must always consider carefully the critical importance of language in the development of learning experiences for their students. Geography, with its vast array of visual materials and the interactive nature of many of its activities, can be an excellent vehicle for the development of language as well as geographic skills.

Observing, listening, speaking, reading, drawing, and writing are essential processes in creating, processing, consolidating, and expressing ideas and concepts. For this reason students must be allowed to be active participants rather than passive observers in the classroom. Teaching strategies must encourage students to participate actively in planning, carrying out, and evaluating their learning.

Learning Styles

There are significant differences in the ways in which people learn. For example, individuals differ in the ways in which they receive and reflect on information, deal with facts, form hypotheses and concepts, and examine things and events and their components. People also have different preferences for the form in which information is presented and discussed (e.g., visual, verbal, and auditory forms), the way in which course material is organized, the media that are employed, and the amount of feedback they receive. Finally, they vary in the comfort they feel when working with others. Some people require more control over their learning environment, or more psychological support, in order to be motivated and thus maximize their learning.

For these reasons every unit of study in geography should accommodate a full range of student learning styles so that students can learn in ways that suit them best. At the same time students should be exposed to modes of learning with which they are less familiar or less comfortable in order to stretch their capacity to learn.

Individual Differences

It is a basic educational policy in Ontario that individual differences are to be accommodated to the greatest extent possible. Thus, curriculum implementation involves the careful and perceptive adaptation of courses and programs, a constant awareness of standards, flexible organizational structures, and, for exceptional students, supportive special education programs and services. Provision should be made for every student to relate to a teacher adviser and to belong to a group. Students who share the same courses may be grouped together for a part of the school day, while the balance of their timetables may be individualized. In this way they will have both a sense of belonging and a sense of independence:

English will be a second language for some students. Others may speak a variety of English that differs from the norm expected in schools. The adaptation of courses for such students is both necessary and expected. For example, course content can be altered to retain the key concepts while eliminating some supporting details. These students can also be provided with learning partners to help them cope with the demands of the course.

Learning Exceptionalities

Universal access to education is fundamental to our society. Special education programs are designed to ensure that exceptional students have access to an education based on the goals that underlie the education available to all students. The needs of individual exceptional students are delineated by the Identification, Placement, and Review Committee (IPRC) of each school board. Five broad areas of exceptionality – behavioural, communicational, intellectual (including gifted), physical, and multiple – provide a preliminary understanding of the range of differences for which provision must be made.

Special education programs may be located in one or more of the following settings: the regular classroom, a resource setting, a self-contained classroom, or a special school. The setting or combination of settings should be carefully chosen so that the exceptional student can take the fullest part possible in the life of the school community.

Learning experiences may differ in content, process, product, and evaluation, but they must correspond to students' needs, abilities, interests, and aspirations. The kind, breadth, depth, and pace of student experiences must be adapted in special education programs. In some cases these adaptations may be relatively simple; in others they may be extensive and may require the use of specially designed equipment.

In determining the adaptations that should be made, educators should consider the following points:

- In general, the integrity of any geography course is expected to be maintained as fully as possible in accordance with the intent of this guideline. However, it is essential to respond to the individual needs of exceptional students through program adaptations that will enable them to participate in a variety of experiences and learning opportunities.

- The teacher should be aware of the learning strengths and specific needs of each student. A learning profile should be compiled by the IPRC and filed in the Ontario Student Record folder. In most cases support is provided by special education personnel through the provision and interpretation of background information.

- Students and parents should receive the best possible advice in respect to the level of difficulty at which any particular course should be taken.

- Teachers and students should discuss adaptations to courses that are in the students' best interests. Students should also be involved in establishing and adapting individual course objectives.

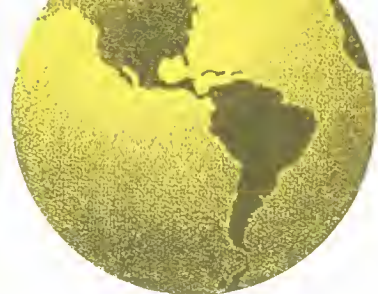
- Students who have been identified as exceptional learn in much the same way, have the same ranges of ability, and generally desire to participate in the same manner as do other students. Teaching strategies that work well with students in general usually work well for exceptional students with two major adaptations: exceptional students need more or less individual attention and more or fewer opportunities to reinforce new skills and concepts than do other students.

- Teaching strategies may be tailored to meet the specific needs of exceptional students in a variety of ways. Adaptations might be made, for example, in the presentation of subject matter, including the use of time, space, materials, and groupings; the performance of learning tasks; and the assessment of student growth.

- Teachers can adapt the presentation of subject matter by:

- a) adjusting the type, difficulty, and amount of material presented;
- b) using concrete materials, hands-on activities, and field work to relate theory to reality;
- c) using films, videotapes, diagrams, other visuals, and extra readings for students with an auditory disability;
- d) using audio-input models and raised relief maps for visually impaired students;
- e) forming buddy systems and encouraging the sharing of student notes for students with motor disabilities;
- f) designing more demanding and creative inquiry, problem-solving, issue-analysis, and independent-study assignments for gifted students;
- g) allocating additional time and resources to some objectives and adding objectives to those that are required whenever this is appropriate;
- h) providing additional aids or requesting the assistance of professional and paraprofessional staff.

Adaptations such as these assist exceptional students but do not lower standards.



Program and Course Requirements

Courses developed from this guideline enable students to fulfil the social science requirements for Intermediate and Senior Division students. These include a minimum of 120 hours of instruction in social sciences in each of Grades 7 and 8, one credit in Canadian geography for the Ontario Secondary School Diploma (this course is usually offered in the first or second year of secondary school), and a Senior Division single-credit course in social sciences.²

As well, school boards and schools may use this guideline to develop a program of geography and geography-related courses to meet the specific needs of their students. Such a program will comprise a combination of courses for credit or partial credit that will help students meet their educational and career goals. (See Part B of this guideline for more detailed planning suggestions in this regard.)

Credits and Modules

A credit is granted on the successful completion of a secondary school course that has been scheduled for a minimum of 110 hours.

All Ontario Academic Courses (OACs) shall be offered as single-credit courses. No fractional credits can be awarded for work completed in an OAC.

For Grades 9 to 12, the maximum credit value for any in-school course described in this guideline is one credit. Where the conditions for co-operative education under OSIS are met, a maximum of two credits may be earned for the out-of-school component of a course.

Students may earn fractional credits in Grades 9 to 12. To be eligible for credit, each module must meet the following criteria:

- Course content must not duplicate material taken in another course.
- The principal shall ensure that the module maintains the intent and integrity of the guideline course on which it is based.
- When fractional credits are permitted, no credit assignment of less than one-quarter may be granted. A minimum of thirty hours shall be allocated to each quarter-credit module.
- The fractional credits that can be earned for each geography course are outlined in the policy and planning considerations provided in each course outline in Parts C, D, E, and F of this guideline. This is in accordance with subsection 4.5 of OSIS.

Guidance and Careers

The guidance guideline states that all teachers shall:

- assist with the development and implementation of the guidance program in the school; . . .
- assist students in developing and maintaining positive self-concepts and good relationships in the classroom; . . .
- develop, teach, and evaluate career education components related to their subject area; . . .
- help students identify and obtain the academic help that they need;
- identify those students who appear to need more intensive assistance and referral to an appropriate agency.³

Preparation for the world of work involves more than the acquisition of specific work skills. The goals of education in Ontario emphasize that this

2. See Ontario, Ministry of Education, *Ontario Schools: Intermediate and Senior Divisions (Grades 7-12/OACs): Program and Diploma Requirements* (Toronto: Ministry of Education, Ontario, 1984), subsection 3.4.

3. Ontario, Ministry of Education, *Guidance, Intermediate and Senior Divisions* (Toronto: Ministry of Education, Ontario, 1984), pp. 7, 11, and 13.

preparation should include the development of interpersonal and decision-making skills, good work habits, flexibility, initiative, leadership, the ability to cope with stress, and regard for the dignity of work. These skills, qualities, and attitudes are implicit in the objectives for geographic education. At the secondary level the emphasis on preparation for the work force or a career will vary according to the level of difficulty of a specific course. Teachers should help students to learn about careers related to interests evolving from the geography program. For this reason geography teachers and guidance personnel should co-operate in providing consistent and reliable support to students in career planning.

Geography provides useful preparation for a wide range of careers. These can be grouped into three broad classes:

– *jobs that demand the sophisticated and advanced geographic knowledge and skills gained in postsecondary institutions.* These jobs include teaching, location analysis, market research, industrial and regional management, environmental analysis, and urban and regional planning.

– *jobs in which some training in geography is advantageous.* Many of these also require postsecondary education for which a background in secondary school geography is beneficial. Typical are careers in cartography, meteorology, geology, economics, and architecture.

– *jobs that are not directly related to training in geography.* The greatest number of secondary school students will find themselves in jobs of this kind. However, all citizens have to be “geographers” at some time or other both on the job and in their personal lives. No one can avoid geography’s central concern with where things are, why they are there, and what is important about their being there. Some degree of global understanding, preparedness for a world of systems and change in which there is a widespread use of maps and charts, and a basic knowledge of one’s own community, nation, and world are fundamental attributes of today’s informed citizen.

Continuing Education

An increasing number of mature learners are returning to school to complete their secondary school education. Because of their interest in contemporary issues and events, these students often find courses in geography appropriate to their needs. In planning the secondary school program, school staff should be aware of, and plan to accommodate, mature learners. Scheduling and the availability of fractional credits are important considerations for such students.

School- and Community-Related Packages

The term *school-related package* identifies a particular set of courses planned by a school to provide a curricular emphasis for students who have specific educational or career goals, such as postsecondary education, training in a particular field, or general education in a particular area of study. By collaborative planning, teachers can build relationships among courses within a particular package.

A *community-related package* is a set of courses planned by the school and the community to provide a curricular emphasis related to the economic base of the community. A package with a concentration in geography should introduce students to skills and knowledge associated with a range of possible occupations. Such a package supports students' entry into the workplace, either following graduation from secondary school or after additional study in a postsecondary program.

In both of these programs opportunities for work experience or a co-operative education placement with an employer may be planned. Schools should follow the directives outlined in subsection 5.10 of OSIS in the development of these programs.

Co-operative Education

Students can acquire and develop a wide variety of skills through co-operative education. These include skills in oral and written communication, computation, and information processing. Students can learn to manage time and money, as well as human and material resources. They can develop a first-hand understanding of land use, data collection, the organization of information, the use of technology, and a variety of other practical geographic skills. In addition, a co-operative education experience can help students to improve their ability to make decisions and solve problems, to work effectively with others, and to apply themselves to a task.

Co-operative education can be used by boards and schools to link the school with the world of work. It will provide students with realistic expectations of business and industry and a knowledge of available careers and their requirements. The out-of-school workplaces may provide hands-on experience not available in the school. Planning agencies, conservation authorities, travel agencies, newspapers, map libraries, real-estate offices, university departments, law-enforcement agencies, and government ministries are possible placements.

It is the subject teacher's responsibility to ensure that the out-of-school component supports the objectives of the in-school course. See subsection 5.11 of OSIS for the specific requirements of co-operative education.

Sex Equity

All students should have equal access to educational experiences. They must also have opportunities to choose and plan for career goals that are realistically based on their talents and abilities.

Teachers must therefore design learning environments in which all students may participate actively and co-operatively. All courses in geography should offer equal access and, just as important, equal appeal to young women and men. In planning and teaching courses, teachers must give attention to the following:

- the choice of topics and approaches to topics, so that there is a balance between the human and physical dimensions of geography, the cognitive and affective domains of learning, and the portrayal of female and male roles
- the course outlines and school-calendar course descriptions, so that students and their parents are fully aware of the scope and direction of

courses and their availability to both women and men

- the availability of career material that is not sex-biased
- the avoidance of labels and terms that convey or perpetuate stereotypes in their own speech and in the resource materials that they use in the classroom
- the equal access of all students to all learning materials and classroom equipment, especially computer equipment
- their own expectations for student achievement
- the sharing of decision-making and leadership opportunities in the classroom
- a fair representation by sex of speakers, experts, and resource persons who are invited to visit the class

Multiculturalism

The policy of multiculturalism officially adopted by the government of Ontario accepts diversity as a characteristic of the Canadian identity and requires that schools help to prepare all students to live in our multicultural society and in an increasingly interdependent world. Everyone has the right to be treated with respect, regardless of colour, race, religion, age, or sex. The philosophy of multiculturalism should permeate the school's curriculum policies, teaching practices, learning materials, courses of study, and assessment procedures. It should govern the attitudes and expectations of staff and all interactions with students, parents, and the community.

Among the affective aims of the geography curriculum are the fostering of humanitarian principles and the acceptance and promotion of the legitimate aspirations of other individuals, groups, and nations to maintain and improve their individual and collective well-being. Teachers will find numerous references to ideas and activities within courses and units of study that will help them to achieve these aims.

Language Across the Curriculum

One of the major aims of every course in this guideline must be to improve the communication skills of every student in every geography class. The fact that the phrase "the information society" is used more and more to describe our culture reinforces the importance of language, because it is through language that most information is transmitted.

Geography students should be constantly involved in developing the five essential language skills of viewing, speaking, listening, reading, and writing. Throughout this guideline teachers are not only encouraged to provide opportunities for students to improve these skills but also given suggestions as to how this can be accomplished. Group work, for example, is recommended as an excellent strategy for developing oral and written skills.

In addition, the cognitive research skills outlined on pages 9 to 12 are fully delineated for various grades and for the three levels of difficulty in Part B of this guideline. The eight skills that are outlined in table 1 require students to focus, organize, locate, record, evaluate or assess, synthesize or conclude, apply, and communicate information. Students will develop their language ability as they use individual steps or proceed through this sequence of steps in the inquiry model.

Geography has a vast literary heritage, ranging from simple descriptions of places – through popular travel guides – to formal, learned articles in professional journals. These reading materials are available at all reading and comprehension levels. Teachers are encouraged to stimulate the interest of their students in the fascinating world around them so that they will be eager to observe, listen to and read material on, and talk and write about that world both inside and outside of the geography classroom.

Library Resource Centres

In order to achieve the objectives related to the acquisition of knowledge and skills and to affective development, students need to become self-directed and able to work effectively in groups. The library resource centre and the teacher-librarian are important to the realization of these objectives.

Traditional textbooks cannot provide the current information that geographic studies demand. In partnership with the teacher-librarian, geography teachers should ensure that students become increasingly capable of locating and using up-to-date information in a wide variety of forms, including audio-visual material.

Assistance for principals, heads of organizational units, and teachers may be found in the Ministry of Education resource document *Partners in Action: The Library Resource Centre in the School Curriculum* (Toronto: Ministry of Education, Ontario, 1982).

Computers in Geographic Education

Computers and Classroom Practice

The importance of adopting classroom practices that meet the needs of learners and that reflect current knowledge about learning is a pervasive theme in this guideline. In this regard, computers offer the following benefits:

- Computers allow students to work in groups to accomplish a variety of tasks that promote co-operation and provide meaningful questions for discussion.
- Many computer simulations involve students in role playing and decision making that require advanced orders of thinking. Often the issues and questions that are raised require the conscious examination of values and attitudes, the pursuit of further information, and the development of skills.
- Computers can help the teacher to move from the roles of authority figure and information provider to the roles of facilitator and consultant.
- Computers can sometimes give students an increased measure of control over the pace of their learning.
- Networking among computers makes it possible for students to access remote data bases, to communicate with classrooms in other locations, and to work simultaneously on tasks or simulations.
- Some computer programs consolidate learning through tutorial or drill-and-practice exercises, thus freeing teachers to use their time more productively.
- Computers make it easier to accumulate and manage data on student achievement.

Computers in the Contemporary World

The computer provides geography teachers with a powerful instructional tool. As good software becomes available, teachers should be prepared to introduce computer-based learning experiences into the curriculum. To do this, the teacher does not need computer-programming skills but does require the desire and imagination to develop classroom practices that use computers productively. The following are some uses of computers in the geography classroom.

Maps and graphs. Cartography involves the gathering of data in a variety of ways (e.g., counts, surveys, interviews) and the arranging of the data so that spatial locations and distributions are revealed. Cartography is a demanding art; it requires a knowledge of projections, design, intervals, symbols, and colour. Graphing requires similar knowledge. Current technology allows us to gather information in increasingly efficient ways. For example, the computer makes it easy for students to experiment with ways of presenting data meaningfully without spending undue time in handling data, trying out layouts, and erasing errors. As a result, students have more time to consider the significant questions raised by the data. In addition, computer graphics make it easier for students to visualize two and three dimensions from plan views.

Simulations and models. Reality is immense and complex. Simulations and models help students to identify the essential components of a process, system, or situation and to arrange them in ways that clarify relationships and interactions. Computer programs enable students, in very brief spans of classroom time, to work with

the components or variables in a simulation, assign values to them, manipulate them, and then see the consequences of their actions.

The computer provides distinct advantages in work with simulations and models. Its capability to calculate quickly enables students to see the consequences of decisions and processes almost immediately. This gives students time to deal with the important questions raised by the reality presented in the simulation. Teachers will see the potential that simulations and models hold for dealing with curriculum topics such as environmental management, locational decisions, and economic development.

Data bases. We live in an information age. The volume and variety of the information that is gathered and stored is immense. Thus, individuals need to know the nature and potential uses of this accumulated information. Many of the skills required in geographic study are similar to those used in the development of data bases or information banks. Data must be collected, classified, organized into frameworks or patterns, and stored in forms that can be accessed when needed. Computers have the capability not only to store large amounts of information but also to display it in forms that allow it to be used in various combinations.

Studies in geography should help students to acquire skills in the collection, organization, entry, accessing, and use of data. Of particular importance are the skills associated with the posing of questions that can be used to recall data in various forms to show relationships, patterns, and trends.

Studies in geography should help students to understand the contemporary world. Computers and computer technology have become instrumental in shaping the ways in which people use space and resources. Their effect on transportation, communications, industrial processes, and the handling of information has changed patterns, linkages, the flow of goods, and the locations of decision making. Students, therefore, need to know what computers are and how they affect human activity in such diverse fields as finance, manufacturing, publishing, and research. The effects of computers on society is a useful topic for study.

Levels of Difficulty

Planning Considerations

Where circumstances warrant, secondary school geography courses from Grades 9 to 12 shall be offered at one or more of the basic, general, and advanced levels of difficulty.

Ideally, classes will contain students at only one level of difficulty. Where enrolments make it necessary, however, classes of more than one level may be formed. Course objectives and evaluation procedures for each level of difficulty included in such combined classes must be articulated clearly so that students, parents, and teachers are aware of the distinctions among the requirements for each level.

Boards should consider alternatives that will provide students with the broadest choice of courses. Such alternatives include the sharing of facilities and personnel, the use of the Independent Learning Centre, and the teaching of some courses in alternate years.

Students enrolled in the Intermediate and Senior Divisions have a wide range of abilities and levels of maturity. As long as the intent and integrity of this guideline are maintained, courses of study in geography may be adapted so that the expectations regarding students' mastery of content, depth of understanding, and competence in skills allow them to achieve a measure of success in their work. In this way each individual may develop the self-confidence needed for further learning.

Basic-Level Courses

Students should see basic-level courses as being of practical use in their present and future lives. The focus of such courses should be on the development of personal skills, social understandings, self-confidence, and preparation for citizenship and the world of work. These courses help students to undertake a successful, independent home and working life, to manage personal financial resources, to communicate effectively, and to develop attitudes that foster good health and fitness, respect for the environment, and a positive approach towards work and leisure.

Studies in geography deal with the interactions of humans and their environments. In basic-level classes the most important initial environment is the immediate one. While studies in geography should lead to higher levels of conceptual growth, student understanding should be sought primarily through practical activities. Thus, the teaching of theoretical concepts (and expectations for their articulation) should be kept to a minimum.

Geographic concepts such as location, spatial interaction, region, and pattern can be illustrated by means of local examples. While facility with geographic skills and techniques may come from investigation and practice in a wide variety of settings, local examples are most likely to be both plentiful and accessible.

Geographic skills apply to many aspects of personal life, including the following:

- getting from one place to another
- seeing places in terms of their positions on a grid and in relation to other places
- gaining a perspective on local issues and events, particularly those that deal with the use of land and resources

General-Level Courses

General-level courses should prepare students for employment or for further studies in the colleges of applied arts and technology and similar non-degree-granting institutions.

Most of the expectations for basic-level courses also apply to general-level courses. However, these courses should move more quickly to expand students' views and to develop their perspectives on the world beyond Ontario and the local community than do the basic-level courses.

General-level courses should help students to become active, caring citizens by enabling them to:

- observe, speak, read, draw, and write with confidence and clarity;
- make decisions, solve problems, and manage their personal affairs;
- acquire and practise the skills necessary for participation in public affairs at the local, provincial, and national levels;
- make judgements based on a balance of economic, moral, and aesthetic considerations.

A requisite of geographic studies is the ability to make generalizations that are appropriate to the scale of the study. One clear aim of general-level courses should be to expand students' horizons beyond the parochial to a national and global viewpoint. Canada, for example, is a trading nation. We depend on trade to maintain our high standard of living. General-level courses should help future citizens consider many questions about the use of land and resources from a viewpoint that extends beyond narrow self-interest.

Advanced-Level Courses

The primary focus of advanced-level courses should be on the development of academic skills and knowledge that will prepare students for entry to university or to certain programs at the colleges of applied arts and technology (not necessarily in geography or geography-related disciplines). Geographic studies should foster a range of intellectual skills associated with inquiry, such as simple research, issue analysis, and problem solving. Advanced-level courses should assist students to understand theoretical principles and practical applications related to a substantial body of knowledge about the human use of the earth, as well as the significance to society of that use.

Most of the expectations for personal life management and participatory skills detailed for the basic- and general-level courses apply as well to advanced-level courses.

Advanced-level courses that are enriched may be offered where feasible. Student achievement in such courses shall be reported at the advanced level so that all students taking an advanced-level course, whether it is enriched or not, will receive assessments based on comparable standards. This is particularly important when students submit their results to postsecondary institutions.

The Evaluation of Student Achievement

General Principles

Evaluation is an integral part of the teaching-learning process. In the long term, a school evaluation process is effective if it helps to produce an individual who can make decisions based on personal and societal standards. In the short term, effective evaluation and assessment practices enable both teachers and students to measure progress against the objectives of the course and to plan further work based on that evidence.

Effective evaluation should enable students to plan realistic educational and career goals by providing them with accurate information. It should help them to achieve a sense of self-worth and motivate them towards further study. Reporting should provide parents with clear and sufficient information about the progress of their children. Finally, curriculum revisions by the teacher, the school, the school board, and the Ministry of Education should be based on information derived from student evaluation.

All evaluation is based on assumptions, for example, that certain knowledge is worthwhile, that individuals should be able to think in specific ways, and that some skills have intrinsic value and wide application. Assumptions about the particular contributions of geographic studies are implicit in this guideline. The successful implementation of this guideline requires that program and course planning take into account current knowledge about learning and student development, as well as shifts in emphasis in the various aims and objectives related to the acquisition of knowledge and skills and affective development. This means that schools must review both teaching and evaluation practices to ensure that the aims of this guideline are met.

In developing evaluation policies and practices for studies in geography, schools should consider factors such as the following:

– **the breadth of aims and objectives.** This guideline stresses the development of student capabilities to inquire, to gather and process information, to reach understandings and conclusions, to make generalizations, to work individually and in groups, and to reflect on attitudes and values. The evaluation of student progress in each of these areas requires specific types of instruments and techniques. Teachers are provided with assistance in this regard in Part B of this guideline.

– **the range of student abilities and aptitudes.** As we learn more about human growth and development, we are better able to understand the range of individual differences. Schools must acknowledge and accommodate these differences by employing a range of assessment techniques.

– **student background.** It is essential that individual cultural experiences and language facility be considered in the planning of assessment techniques.

– **the relative importance of evaluation in the teaching-learning process.** Although evaluation is important, it should not consume a disproportionate amount of instructional time. Assessment techniques can vary from relatively informal to highly structured, depending on the objective of the activity.

– **the need for evaluation to be encouraging wherever possible.** To have a positive sense of identity and self-worth, students need to be aware of their progress towards the course objectives. Therefore, they need to be aware of and to understand both those learning objectives and the ways in which their achievement will be evaluated. To some degree, students should be involved in establishing evaluation criteria and evaluating their own progress.

– **the need to communicate the results of evaluation in useful ways.** Reports and records for students, parents, colleagues, school administration, other educational institutions, and employers must be based on established criteria and must provide information in a clear and understandable fashion.

Diagnostic, Formative, and Summative Evaluation

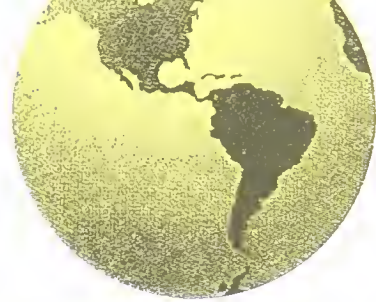
There are three major types of evaluation: diagnostic, formative, and summative. Each has a different purpose, but there are also important commonalities among them. All may require a wide range of instruments, all may use both formal and informal techniques, and all should relate to the objectives of the course or unit of study.

Diagnostic assessment. Diagnostic assessment is normally planned for the beginning of a course or unit of study, but it may also take place when any new topic or skill is introduced. As the name implies, it helps to establish benchmarks for the teaching that will follow or to determine the nature of the difficulty that students may be having. This information then forms the basis for making modifications to planned learning activities. Diagnostic assessment should not be used as a basis for assigning marks.

Formative evaluation. Formative evaluation should take place throughout a course as a daily and weekly activity. Its prime purposes are to determine how well the student is learning as a result of the program and to keep both students and teachers aware of objectives and their progress towards achieving them. Formative evaluation provides information that will be useful in the summative evaluation process. Form-

ative evaluation also allows teachers to modify their teaching plans. However, formative evaluation is not the responsibility solely of teachers. Self-evaluation and peer evaluation are important and useful strategies of formative evaluation.

Summative evaluation. Summative evaluation takes place at the completion of a course or a segment of a course. Its purpose is to judge student achievement in meeting the course's stated objectives. As well, it may be used to award a mark or a credit and to report to students, parents, and school officials on student achievement. Summative evaluation should reflect the percentage of time allocated to the sections and units of the courses outlined in this guideline.



Responsibilities at the School-Board Level

The Ministry of Education updates curriculum as part of a cycle that includes the review of existing programs and practices, the development of guidelines to meet perceived needs, and the implementation of revised programs over a period of time. The purpose of guideline renewal is to help teachers plan and provide learning experiences that embody current thought and practice. The success of this process requires that schools follow a similar pattern of review, development, and implementation in order to make the changes necessary to achieve the broad aims of new guidelines.

Teachers will need to change courses of study and classroom practices as they implement this guideline. Factors such as revised diploma requirements, new knowledge about the nature of learners and learning, and changes in the contemporary world itself will shape such changes.

This section describes briefly the activities and responsibilities necessary for the renewal of the curriculum at the board and school levels. Because both boards and schools across the province vary greatly in student population and administrative organization, the responsibilities have been listed in general terms. Local boards are best able to translate these general statements into effective action plans.

While the Ministry of Education articulates the broad goals of education and develops curriculum guidelines and support documents, it is the responsibility of local boards both to provide programs in geography that reflect provincial policy and to meet local needs and priorities. Initially, the board must assess the extent and nature of the changes required to meet the aims of the guideline. This assessment includes the following:

- decisions on the leadership of the process
- an assessment of local needs
- a review of existing programs
- a determination of the congruency between the revised guidelines and existing programs
- the preparation of an action plan

The action plan must then take the following into consideration:

- leadership
- available resources
- the extent of the program to be offered
- the revision of existing course outlines
- professional development
- a timetable for the introduction and the eventual full implementation of changes

- methods of delivery, including adult education, co-operative education, school-related packages, community-related packages, independent study, and distance education
- the equipment that will be required
- the monitoring of the program's effectiveness in key areas of policy, such as multiculturalism, sex equity, and safety

Responsibilities at the School Level

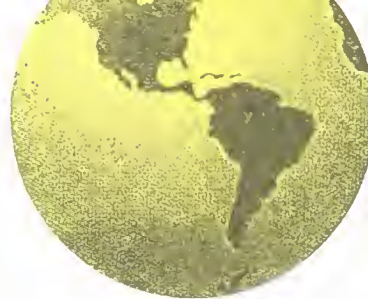
Within the policies and priorities established by the Ministry of Education and the school board, the school must make provision for the following:

- leadership
- communication with parents and students
- collaboration with guidance staff
- liaison and communication with feeder schools and schools that students will attend later
- opportunities for interdisciplinary planning
- the definition of the school program, including the courses to be offered, their sequence, their levels of difficulty, school- and community-related packages, opportunities for co-operative education and work-experience programs, and adult education
- the allocation of time, resources, and teaching staff
- the acquisition and maintenance of equipment
- the preparation and filing of course outlines and units of study
- professional development
- quality of instruction
- the supervision and safety of students (especially for out-of-school activities)
- evaluation policies
- records and reporting procedures

Responsibilities Within an Organizational Unit of the School

Within the policies and priorities established by the Ministry of Education, the school board, and the school administration, the organizational unit responsible for geography and geography-related subjects must make provision for the following:

- program proposals
- the preparation of courses and units of study
- consultation with the teacher-librarian about the acquisition of learning resources
- staff assignment
- quality of instruction
- communication with other departments or organizational units
- communication with other schools
- the acquisition of equipment and learning materials
- the use of equipment and facilities
- professional development
- the supervision and safety of students
- the provision of course outlines for school files
- communication with students and parents on program objectives and modes of delivery
- adherence to provincial and school-board policies where they apply
- the evaluation and reporting of student achievement
- the needs of exceptional students



Program reviews are necessary to improve the design of the curriculum and should be an ongoing part of curriculum development. Depending on the purpose, information may be gathered at a variety of levels – at a department in a school or on a province-wide basis.

At the school or school-board level reviews should be designed to gather information on areas such as the following:

- the congruence between the goals, aims, and objectives set out in provincial curriculum guidelines and those of locally developed programs
- the appropriateness of local program aims and course objectives
- the achievement of program aims and course objectives
- successful teaching strategies
- the adequacy of equipment and learning materials

- the capability of courses to attract and hold both male and female students
- evaluation techniques and processes
- future curriculum-development needs
- the perception of others (e.g., parents, the community, postsecondary institutions) of the program's quality

Because information-gathering techniques vary with purpose, each review must be designed for specific purposes, and all instruments and techniques should match the specific objectives of the review. A review might employ surveys, interviews, and observations by people outside of the school, such as teachers from other schools or school systems, supervisory personnel, and guest experts. Sources of information could include school staff, students, graduates, parents, instructors in universities and colleges of applied arts and technology, and representatives of local industry. It would be useful to develop and test a bank of instruments that could be used in subsequent reviews, thus providing a cumulative record of progress.

The information derived from reviews can be used to:

- establish realistic course objectives and achievement criteria;
- identify professional-development requirements;
- update library resources for professional development;
- provide information to students and parents about course and career choices;
- define needs and assign responsibilities at the school level;
- provide feedback to teachers, board officials, and the Ministry of Education about future curriculum-development needs.

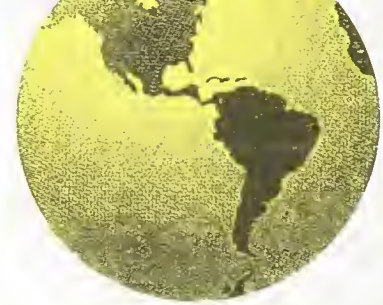


Table 4 Program Summary Chart

A program summary chart follows. The detailed descriptions in the course outlines found in Parts C, D, E, and F of this guideline include specific objectives relating to the knowledge, skills, and attitudes that shall be incorporated into each course. The skills emphasize the inquiry process, as well as map, globe, and other skills that are of particular importance in geographic studies. In planning their courses, teachers should ensure that all components of geographic education are included (i.e., knowledge, skills, and attitudes).

All but four of the credit courses shown in table 4 may be offered at the basic, general, and advanced levels of difficulty. The exceptions are World Development: Studies in Contrasts, which is available at the basic and general levels only; Geology, which is available at the general and advanced levels only; and the two OACs, which are available only at the advanced level.

For Grades 9 to 12, the maximum credit value for any in-school course described in this guideline is one credit. Where the conditions for co-operative education are met (see OSIS, subsection 5.11), a maximum of two credits may be earned for the out-of-school component of a course.

Course	Level of Difficulty		
Intermediate Division			
Grades 7 and 8			
– Patterns in Physical Geography	N.A.	N.A.	N.A.
– Patterns in Human Geography	N.A.	N.A.	N.A.
Grades 9 and 10			
– Geography of Canada (GCA)	B	G	A
– Geography of Europe and Asia (GEA)	B	G	A
Senior Division			
Grades 11 and 12 ¹			
– Physical Geography (GPH)	B	G	A
– Human Geography (GHU)	B	G	A
– Regional Geography (GRE)	B	G	A
– Urban Studies (GUR)	B	G	A
– Geographics (GOS)	B	G	A
– World Development: Studies in Contrasts (GWD)	B	G	
– Environmental Studies (GNS)	B	G	A
– Geology (GGE) ²		G	A
Ontario Academic Courses ³			
– World Issues: Geographic Interpretations (GWI)			A
– Canada: Its Environment and Economy (GCE)			A
B – Basic G – General A – Advanced			

- 1. Senior Division courses, except OACs, have no prerequisites.
- 2. The detailed outlines for the geology courses are contained in the science guideline. This geography document does, however, contain brief outlines of both courses and explains the policy regarding their use by geography departments.
- 3. The prerequisite for Ontario Academic Courses in geography is one Senior Division advanced-level course in the social sciences.

Intermediate Division Courses (Grades 7 to 10)

Patterns in Physical Geography and Patterns in Human Geography (Grades 7 and 8)

In the Grade 7 and 8 program students study some of the major geographic patterns found across the surface of the earth. The preferred emphasis is on the physical geography patterns in Grade 7 and on the human geography patterns in Grade 8, but in both grades the search for and the explanation of the patterns are the main areas of inquiry. Although the sequence indicated is desirable, it is permissible to teach each course in either grade.

In each grade a minimum of 120 hours of instructional time must be spent on geography and history programs combined (see subsection 3.4 of OSIS).

Geography of Canada (GCA) (Grade 9 or 10)

This geography course, normally offered in Grade 9 or 10, has no prerequisite and is required for an Ontario Secondary School Diploma. A detailed outline is provided for each of the three levels of difficulty at which this course may be offered. A minimum of seven units of content are required: three core units from section A, three or more optional units from section B, and the one core unit of section C. Students may earn a maximum of one credit for this course.

Geography of Europe and Asia (GEA) (Grade 9 or 10)

This optional course is offered in either Grade 9 or 10. It has no prerequisites. Assistance is provided for the development of courses for each of the three levels of difficulty at which this course may be offered. Students may earn a maximum of one credit for this course.

Senior Division Courses (Grades 11 and 12)

In the Senior Division students are provided with the opportunity to select from a variety of geography courses. In illustrating concepts in these programs (many of these concepts are global in nature), teachers should make frequent reference to local or Canadian examples. They should also ensure that the appropriate knowledge, skills, and attitudes are carefully integrated into the units listed for each course.

Except for the two OACs, courses developed from this geography program may include modules, singly or in combination, to form full- or partial-credit courses. When modules from several guidelines are combined in a course, the fractional credits within it must be attributed to the course codes of the courses from which the modules were derived (see subsection 4.5 of OSIS).

Specific instructions regarding the development of modules are provided in the policy and planning considerations found in each course outline.

With the following exceptions, all Senior Division courses may be developed at the basic, general, and advanced levels:

- World Development: Studies in Contrasts may be offered only at the basic or general level.
- Geology may be offered only at the general or advanced level.
- OACs may be offered only at the advanced level.

Physical Geography (GPH)

This course provides for the systematic study of the various physical elements that make up the earth and the interacting systems in land, sea, and air that support life. The significance of the earth's physical characteristics to human life is a secondary emphasis of the course.

Human Geography (GHU)

This course provides for the systematic study of the nature and distribution of human activities on the earth. The two major factors involved are human population and the environment.

Regional Geography (GRE)

In this course students have the opportunity to study and identify the character of representative world regions. Regional studies require a careful examination of the interactions of the population with the region's physical conditions and resources.

Urban Studies (GUR)

By studying courses based on this outline, students should develop a fuller understanding of the nature of the urban places where a substantial and ever-increasing proportion of the earth's people reside. Urban places and networks greatly influence the social, economic, and cultural character of the world's nations and have a powerful influence on rural environments.

Geographics: Acquiring Skills Through Geography (GOS)

This course stresses the development of the practical skills that are applied to geographic studies. Students will have opportunities to apply the inquiry model to the study of topics and to develop and use mapping and other graphic skills commonly associated with geography.

World Development: Studies in Contrasts (GWD)

This course provides students with the opportunity to examine contrasts in world development. The emphasis is on the study of countries and groups of countries that illustrate contrasts in their economic systems, wealth, social development, and power.

Environmental Studies (GNS)

This course examines human activity as a major environmental process. It considers concepts and principles associated with preservation, conservation, change, and the management of natural and built environments.

Geology (GGE or SGE)⁴

These courses will provide students with an introduction to the study of geology. The emphasis is placed on the dynamic nature of the planet earth through a study of the physical, chemical, and geological nature of its parts and their relationship in time and space. Studies should relate, wherever possible, to the student's local environment.

The course outlines for geology are contained in Part 11 of the science guideline, *Geology, Grade 12 General and Advanced Levels*. Geology courses should be taught in conjunction with the appropriate policy components found in both the science guideline (*Part 1: Program Outline and Policy*) and this geography guideline (*Part A: Policy and Program Expectations* and *Part B: Planning at the Local Level*).

These courses may form part of a school's geography or science program, and the credit earned in geology may, at the individual student's discretion, be used as a credit in either geography or science. Whether classified as geography or science, the advanced-level course may be used as a prerequisite to the Science in Society OAC. In addition, if a geology course is credited to geography, it may be counted as the compulsory social-science credit required in the Senior Division.

For transcript purposes, science teachers will be coding the geology courses as Grade 12 courses only. However, the courses may be taught in other appropriate grades as desired. Geography teachers should code their courses to reflect the grade level at which they are offered.

4. The course code to be used for these courses depends on whether the course in question is designated as a geography (GGE) or as a science (SGE) course.

Ontario Academic Courses

Ontario Academic Courses (OACs) are intended primarily for students who plan to enter a university program, although not necessarily in geography or geography-related programs. Courses of study developed from these outlines must provide for a depth of treatment and academic standards that are appropriate for this purpose. In order to ensure a sufficient depth of study, no fractional credit less than one shall be granted. The credit for an OAC in geography may be counted among those required for an Ontario Secondary School Diploma. The prerequisite for admission to either OAC is one Senior Division advanced-level credit in the social sciences.

World Issues: Geographic Interpretations (GWI)

This advanced-level, single-credit course is intended to provide a global viewpoint on some of the major issues in the contemporary world. By examining a number of environmental, social, and economic issues from a geographic perspective, students will be able to broaden and deepen their understanding of the implications of living in the global village.

Canada: Environment and Economy (GCE)

This advanced-level, single-credit course will provide students with new perspectives on the Canada of today and tomorrow by increasing their knowledge of Canada's natural, economic, social, and political environments within the larger world community. Students will come to understand more fully the complex, integrated, economic, and environmental landscape that has developed in many parts of this country, where only a sparsely populated near wilderness existed a few centuries ago.

ACKNOWLEDGEMENTS



Project Managers

The Ministry of Education wishes to acknowledge the contributions of the many persons who participated in the development and validation of the geography guideline.

Marcel Bard
Centre for Secondary and Adult Education,
Ministry of Education

Rosaire Cloutier
Centre for Secondary and Adult Education,
Ministry of Education

Robert H. Goddard*
Centre for Secondary and Adult Education,
Ministry of Education

Leonard A. Swatridge*
Centre for Secondary and Adult Education,
Ministry of Education

Advisory Team

Bernard Allen
Windsor Roman Catholic Separate School Board

Richard P. Baine*
University of Toronto

Raymond Corbeil*
Timmins Board of Education

G rard Dalcourt
Sudbury District Roman Catholic Separate School Board

James Forrester
Board of Education for the City of Hamilton

Paul D. Forte
York Region Roman Catholic Separate School Board

Jacqueline Fortin-Lacoste
Metropolitan Separate School Board

Bruce Hill
Central Ontario Regional Office,
Ministry of Education

Wayne Hopkins*
Nipissing Board of Education

Marilyn A. Knott
Lakehead District Roman Catholic Separate School Board

Robert Lefebvre
Prescott and Russell County Board of Education

T. Dickson Mansfield
Frontenac County Board of Education

Dennis Mock*
Ryerson Polytechnical Institute

Robert Morrow, Jr.
Wentworth County Board of Education

Michael R. Moss
University of Guelph

Henri Nadeau
Ottawa Roman Catholic Separate School Board

Val Pistor
Board of Education for the City of Windsor

*Member of design team

Writing Team

Garry J. Quinlan*
Northumberland and
Newcastle Board of
Education

Gail Rappolt*
Board of Education for
the City of Hamilton

Billie Anne Robinson
Board of Education for
the City of Toronto

Katharine A. Rowland*
Board of Education for
the City of York

André U. Saintonge*
Timiskaming Board
of Education

William Struk
Sault Ste. Marie
District Roman Catholic
Separate School Board

Elizabeth Terry
Central Ontario
Regional Office,
Ministry of Education

Ben Vass
Board of Education for
the City of North York

Marcien Villemure
University of Ottawa

Craig Alderson
Lennox and Addington
County Board of Education

Michelle Bélanger
Prescott and Russell
County Board of Education

Marion Blake
Ontario Institute for
Studies in Education

Frank Boddy
Simcoe County Board
of Education

David Buhler
Board of Education for
the City of Scarborough

Lorraine Clarkson
Board of Education for
the City of Toronto

Wayne Cornack
Dufferin-Peel Roman
Catholic Separate
School Board

Graham Draper
York Region Board
of Education

Wayne Hopkins*
Nipissing Board
of Education

Walter Kemball
formerly of
the Board of Education for
the City of Etobicoke

George Lucas
Board of Education for
the City of Toronto

Robert Lucas
Board of Education for
the City of London

Donald McGugan
formerly of
the Midnorthern Ontario
Regional Office,
Ministry of Education

Dennis Mock*
Ryerson Polytechnical
Institute

Michael Moher
Peterborough-Victoria-
Northumberland and
Newcastle Roman
Catholic Separate
School Board

Robert Morrow Jr.
Wentworth County
Board of Education

Garry J. Quinlan*
Northumberland and
Newcastle Board of
Education

Marlis Skilton
formerly of
Biddulth Grammar School,
United Kingdom

Roger Vallières
Dufferin-Peel Roman
Catholic Separate
School Board

Christine Woolley
Board of Education for
the City of Etobicoke

Michel Yelle
Essex County Board
of Education

*Member of design team

Resource Persons and
Validators

Beth Ashton
Board of Education for
the City of Etobicoke

John Britton
University of Toronto

Richard Butler
University of Western
Ontario

James Carroll
formerly of
the Board of Education for
the City of Scarborough

Michael Fox
Carleton University

Hugh Gayler
Brock University

Gerry Hall
Wilfrid Laurier University

Frederick Helleiner
Trent University

Peter Johnson
University of Ottawa

David Kemp
Lakehead University

Ralph Krueger
University of Waterloo

Nancy Maynes
Lincoln County Board
of Education

Virginia McLaren
University of Toronto

Glen Norcliffe
York University

Don Revell
Lincoln County Board
of Education

Oiva Saarinen
Laurentian University

Margo Smith
Lincoln County Board
of Education

Roland Tinline
Queen's University

Tom Wilkinson
Carleton University

*The ministry also wishes
to express its appreciation
to all of the boards,
schools, and individual
educators who made con-
tributions to this guideline
during its development
and validation stages.*

*Member of design team

A

GEOGRAPHY



ISBN 0-7729-3347-2

88-017

© Queen's Printer for Ontario, 1988